BRUHATH BANGALORE MAHANAGARA PALIKE
Byatarayanapura Division

Name of the work: Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

First RA Bill
MEASUREMENT SHEETS

Bruhat Bengaluru Mahanagara Palike

Bytarayanapura Division

Job Code :- 007-16-000035,007-16-000036,007-16-000037,007-16-000038,007-16-000039,007-16-000040,008-16-000033,008-16-000034,008-16-000035, 26621

Name of Agency :-M/s.Ram and Company

Bill No :- 1st Part Bill

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
Measurements recorded on : 19/12/17											
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)										
	2nd cross										
	From High Tension Wire Road										
	LHS										
	0.00	15.00		1.00	15.00			0.45	0.50	3.38	
	15.00	30.00		1.00	15.00			0.45	0.50	3.38	
	30.00	45.00		1.00	15.00			0.45	0.50	3.38	
	45.00	60.00		1.00	15.00			0.45	0.50	3.38	
	60.00	75.00		1.00	15.00			0.45	0.50	3.38	
	75.00	90.00		1.00	15.00			0.45	0.70	4.73	
	90.00	105.00		1.00	15.00			0.45	0.70	4.73	
	105.00	120.00		1.00	15.00			0.45	0.70	4.73	
	120.00	135.00		1.00	15.00			0.45	0.70	4.73	
	135.00	150.00		1.00	15.00			0.45	0.70	4.73	
	150.00	156.20		1.00	6.20			0.45	0.70	1.95	
	156.20	171.20		1.00	15.00			0.45	0.70	4.73	cross road 1
	171.20	186.20		1.00	15.00			0.45	0.70	4.73	
	186.20	200.20		1.00	14.00			0.45	0.70	4.41	cross road 2
	200.20	215.20		1.00	15.00			0.45	0.50	3.38	
	215.20	230.20		1.00	15.00			0.45	0.50	3.38	
	230.20	245.20		1.00	15.00			0.45	0.50	3.38	
	245.20	260.20		1.00	15.00			0.45	0.75	5.06	
	260.20	275.20		1.00	15.00			0.45	0.75	5.06	
	275.20	290.20		1.00	15.00			0.45	0.75	5.06	
	290.20	305.20		1.00	15.00			0.45	0.75	5.06	

Consultant

Assistant Engineer

AE(WD)

Assistant Executive Engineer

Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	305.20	320.20		1.00	15.00			0.45	0.75	5.06	
	320.20	335.20		1.00	15.00			0.45	0.75	5.06	
	335.20	350.20		1.00	15.00			0.45	0.75	5.06	
	350.20	365.20		1.00	15.00			0.45	0.60	4.05	
	365.20	380.20		1.00	15.00			0.45	0.60	4.05	
	380.20	395.20		1.00	15.00			0.45	0.60	4.05	
	395.20	413.20		1.00	18.00			0.45	0.60	4.86	
	413.20	415.20		1.00	2.00			0.45	0.50	0.45	Approach
	RHS										
	0.00	15.00		1.00	15.00			0.45	0.50	3.38	
	15.00	30.00		1.00	15.00			0.45	0.50	3.38	
	30.00	45.00		1.00	15.00			0.45	0.80	5.40	
	45.00	60.00		1.00	15.00			0.45	0.80	5.40	
	60.00	75.00		1.00	15.00			0.45	0.80	5.40	
	75.00	90.00		1.00	15.00			0.45	0.80	5.40	
	90.00	105.00		1.00	15.00			0.45	0.80	5.40	
	105.00	120.00		1.00	15.00			0.45	0.80	5.40	
	120.00	135.00		1.00	15.00			0.45	0.80	5.40	
	135.00	150.00		1.00	15.00			0.45	0.80	5.40	
	150.00	156.20		1.00	6.20			0.45	0.80	2.23	
	156.20	171.20		1.00	15.00			0.45	0.75	5.06	cross road 1
	171.20	186.20		1.00	15.00			0.45	0.75	5.06	
	186.20	200.20		1.00	14.00			0.45	0.75	4.73	cross road 2
	200.20	215.20		1.00	15.00			0.45	0.50	3.38	
	215.20	230.20		1.00	15.00			0.45	0.70	4.73	
	230.20	245.20		1.00	15.00			0.45	0.70	4.73	
	245.20	260.20		1.00	15.00			0.45	0.70	4.73	
	260.20	275.20		1.00	15.00			0.45	0.75	5.06	
	275.20	290.20		1.00	15.00			0.45	0.75	5.06	
	290.20	305.20		1.00	15.00			0.45	0.75	5.06	
	305.20	320.20		1.00	15.00			0.45	0.75	5.06	
	320.20	335.20		1.00	15.00			0.45	0.75	5.06	
	335.20	350.20		1.00	15.00			0.45	0.75	5.06	
	350.20	365.20		1.00	15.00			0.45	0.75	5.06	
	365.20	380.20		1.00	15.00			0.45	0.75	5.06	

Consultant

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	380.20	395.20		1.00	15.00			0.45	0.75	5.06	
	395.20	413.20		1.00	18.00			0.45	0.75	6.08	
	Cross Road 1 in 2nd Cross										
	RHS										
	0.00	15.00		1.00	15.00			0.50	0.35	2.63	
	15.00	31.00		1.00	16.00			0.50	0.35	2.80	
	Cross Road 2 in 2nd Cross										Both Side No
	2nd Cross Road, Muniswamappa Layout										
	LHS										
	0.00	15.00		1.00	15.00			0.45	0.60	4.05	BS Drain Desilt
	15.00	30.00		1.00	15.00			0.45	0.60	4.05	
	30.00	45.00		1.00	15.00			0.45	0.60	4.05	
	45.00	60.00		1.00	15.00			0.45	0.60	4.05	
	60.00	75.00		1.00	15.00			0.45	0.45	3.04	
	75.00	90.00		1.00	15.00			0.45	0.30	2.03	
	RHS										
	0.00	15.00		1.00	15.00			0.45	0.65	4.39	
	15.00	30.00		1.00	15.00			0.45	0.65	4.39	
	30.00	45.00		1.00	15.00			0.45	0.65	4.39	
	45.00	60.00		1.00	15.00			0.45	0.65	4.39	
	60.00	75.00		1.00	15.00			0.45	0.65	4.39	
	75.00	90.00		1.00	15.00			0.45	0.65	4.39	
	90.00	105.00		1.00	15.00			0.45	0.65	4.39	
	105.00	120.00		1.00	15.00			0.45	0.75	5.06	
	120.00	135.00		1.00	15.00			0.45	0.75	5.06	
	135.00	150.00		1.00	15.00			0.45	0.75	5.06	
	150.00	157.80		1.00	7.80			0.45	0.75	2.63	
	1st Cross Road,Muniswamappa layout										
	LHS										
	0.00	15.00		1.00	15.00			0.40	0.75	4.50	SSM Drain Desilt

Consultant

Assistant Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	15.00	30.00		1.00	15.00			0.40	0.75	4.50	
	30.00	45.00		1.00	15.00			0.40	0.75	4.50	
	45.00	60.00		1.00	15.00			0.40	0.75	4.50	
	60.00	70.00		1.00	10.00			0.40	0.75	3.00	
	RHS										
	0.00	15.00		1.00	15.00			0.40	0.75	4.50	BS Drain Desilt
	15.00	30.00		1.00	15.00			0.40	0.75	4.50	
	30.00	45.00		1.00	15.00			0.40	0.75	4.50	
	45.00	60.00		1.00	15.00			0.40	0.75	4.50	
	60.00	70.00		1.00	10.00			0.40	0.75	3.00	
	1st A Cross Road,Muniswamappa Layout										
	LHS										
	0.00	2.00		1.00	2.00						Approach
	2.00	17.00		1.00	15.00			0.60	0.75	6.75	BS Drain Desilt
	17.00	32.00		1.00	15.00			0.60	0.75	6.75	
	32.00	47.00		1.00	15.00			0.60	0.75	6.75	
	47.00	67.00		1.00	20.00			0.60	0.75	9.00	
	RHS										
	0.00	2.00		1.00	2.00			-	-		Approach
	2.00	17.00		1.00	15.00			0.60	0.75	6.75	BS Drain Desilt
	17.00	32.00		1.00	15.00			0.60	0.75	6.75	
	32.00	47.00		1.00	15.00			0.60	0.75	6.75	
	47.00	67.00		1.00	20.00			0.60	0.75	9.00	
	culverts, kariyanna layout										
	C1-3rd C/S			1.00	5.00			2.00	1.00	10.00	
	C2- 1st c/s			1.00	4.30			2.00	1.00	8.60	
	Over Brden Earth 2nd Cross										
	LHS										
	90.00	105.00		1.00	15.00			1.00	0.30	4.50	

Consultant

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	105.00	120.00		1.00	15.00			1.00	0.30	4.50	
	150.00	156.20		1.00	6.20			1.00	0.30	1.86	
	156.20	171.20		1.00	15.00			1.00	0.30	4.50	
	171.20	186.20		1.00	15.00			1.00	0.30	4.50	
	290.20	305.20		1.00	15.00			1.00	0.30	4.50	
	335.20	350.20		1.00	15.00			1.00	0.30	4.50	
	350.20	365.20		1.00	15.00			1.00	0.30	4.50	
	365.20	380.20		1.00	15.00			1.00	0.30	4.50	
	380.20	395.20		1.00	15.00			1.00	0.30	4.50	
	395.20	413.20		1.00	18.00			1.00	0.30	5.40	
	RHS										
	0.00	15.00		1.00	15.00			1.00	0.30	4.50	
	15.00	30.00		1.00	15.00			1.00	0.30	4.50	
	30.00	45.00		1.00	15.00			1.00	0.30	4.50	
	45.00	60.00		1.00	15.00			1.00	0.30	4.50	
	60.00	75.00		1.00	15.00			1.00	0.30	4.50	
	75.00	90.00		1.00	15.00			1.00	0.30	4.50	
	90.00	105.00		1.00	15.00			1.00	0.30	4.50	
	105.00	120.00		1.00	15.00			1.00	0.30	4.50	
	120.00	135.00		1.00	15.00			1.00	0.30	4.50	
	135.00	150.00		1.00	15.00			1.00	0.30	4.50	
	186.20	200.20		1.00	14.00			1.00	0.30	4.20	
	200.20	215.20		1.00	15.00			1.00	0.30	4.50	
	215.20	230.20		1.00	15.00			1.00	0.30	4.50	
	230.20	245.20		1.00	15.00			1.00	0.30	4.50	
	245.20	260.20		1.00	15.00			1.00	0.30	4.50	
	260.20	275.20		1.00	15.00			1.00	0.30	4.50	
	275.20	290.20		1.00	15.00			1.00	0.30	4.50	
	335.20	350.20		1.00	15.00			1.00	0.30	4.50	
	350.20	365.20		1.00	15.00			1.00	0.30	4.50	
	365.20	380.20		1.00	15.00			1.00	0.30	4.50	
	380.20	395.2		1.00	15.00			1.00	0.30	4.50	

591.84m²

Consultant

Assistant Engineer

AE(W)
19/12/17

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Pal
Bangalore - 560 092

19/12/17

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
							Total Qty in Cum			591.84	
Measurements recorded on : 26/12/17											
2	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)										
	BS Slab Drain										
	2nd cross										
	From High Tension Wire Road										
	LHS										
	0.00	15.00		2.00	15.00			0.50		15.00	BS Slab Drain-side wall
				1.00	15.00			1.20		18.00	covering slab
	15.00	30.00		2.00	15.00			0.50		15.00	
				1.00	15.00			1.20		18.00	
	30.00	45.00		3.00	15.00			0.50		22.50	BS Slab Drain-side wall/bottom slab
	45.00	60.00		3.00	15.00			0.50		22.50	
	60.00	75.00		3.00	15.00			0.50		22.50	
	75.00	90.00		3.00	15.00			0.50		22.50	
	90.00	105.00		3.00	15.00			0.50		22.50	
	105.00	120.00		3.00	15.00			0.50		22.50	
	120.00	135.00		3.00	15.00			0.50		22.50	
	135.00	150.00		3.00	15.00			0.50		22.50	
					0.00						
	156.20	171.20		2.00	15.00			0.50		15.00	
	171.20	186.20		2.00	15.00			0.50		15.00	
				1.00	15.00			1.20		18.00	
	200.20	215.20		2.00	15.00			0.50		15.00	
				1.00	15.00			1.20		18.00	
	215.20	230.00		3.00	14.80			0.50		22.20	
				1.00	15.00			1.20		18.00	
	230.20	245.20		2.00	15.00			0.50		15.00	
	245.20	290.20		2.00	45.00			0.50		45.00	

Consultant

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	290.20	305.20		2.00	15.00			0.50		15.00	
				1.00	15.00			1.20		18.00	
	305.20	320.20			15.00					0.00	
	320.20	335.20		2.00	15.00			0.50		15.00	
				1.00	7.00			1.20		8.40	
	335.20	350.20		2.00	15.00			0.50		15.00	
				1.00	15.00			1.20		18.00	
	350.20	365.20		2.00	15.00			0.50		15.00	
				1.00	15.00			1.20		18.00	
	365.20	380.20		2.00	15.00			0.50		15.00	
				1.00	15.00			1.20		18.00	
	380.20	413.00		2.00	32.80			0.50		32.80	
	BS Slab Drain										
	2nd cross										
	From High Tension Wire Road										
	RHS										
	0.00	15.00		3.00	15.00			0.50		22.50	BS Slab Drain-side wall
				1.00	10.00			1.20		12.00	covering slab
	15.00	30.00		2.00	15.00			0.50		15.00	
				1.00	10.00			1.20		12.00	
	30.00	45.00		3.00	15.00			0.50		22.50	BS Slab Drain-side wall/bottom slab
				1.00	15.00			1.20		18.00	
	45.00	60.00		3.00	15.00			0.50		22.50	
				1.00	15.00						
	60.00	75.00		3.00	15.00			0.50		22.50	
	75.00	90.00		3.00	15.00			0.50		22.50	
				1.00	15.00						
	90.00	105.00		3.00	15.00			0.50		22.50	
				1.00	15.00						
	105.00	120.00		3.00	15.00			0.50		22.50	

Consultant

Assistant Engineer
AE(Civil)

Assistant Executive Engineer
Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
				1.00	15.00						
	120.00	135.00		3.00	15.00			0.50		22.50	
				1.00	15.00						
	135.00	150.00		3.00	15.00			0.50		22.50	
	150.00	156.20		1.00	6.20						
	156.20	171.20		2.00	15.00			0.50		15.00	
				1.00	15.00						
	171.20	186.20		2.00	15.00			0.50		15.00	
				1.00	15.00			1.20		18.00	
	186.20	200.20		1.00	15.00						
	200.20	215.20		3.00	15.00			0.50		22.50	
				1.00	15.00			1.20		18.00	
	215.20	230.00		3.00	14.80			0.50		22.20	
	230.20	245.20		3.00	15.00			0.50		22.50	
	245.20	260.20		3.00	15.00			0.50		22.50	
	260.20	275.20		3.00	15.00			0.50		22.50	
				1.00	15.00			1.20		18.00	
	275.20	290.20		2.00	15.00			0.50		15.00	
	290.20	305.20		3.00	15.00			0.50		22.50	
	305.20	320.20		3.00	15.00			0.50		22.50	
	320.20	335.20		3.00	15.00			0.50		22.50	
	335.20	350.20		3.00	15.00			0.50		22.50	
	350.20	365.20		3.00	15.00			0.50		22.50	
				1.00	15.00			1.20		18.00	
	365.20	380.20		2.00	15.00			0.50		15.00	
				1.00	15.00			1.20		18.00	
	380.20	395.20		2.00	15.00			0.50		15.00	
				1.00	15.00			1.20		18.00	
	395.20	413.20		2.00	15.00			0.50		15.00	
	2nd Cross Road, Muniswamappa Layout										

Consultant

Assistant Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	LHS										
	0.00	15.00		3.00	15.00			0.45		20.25	
	15.00	30.00		2.00	15.00			0.45		13.50	BS Slab
				1.00	10.00			1.20		12.00	
	30.00	45.00		2.00	10.00			0.50		10.00	
				1.00	10.00			1.20		12.00	
	45.00	60.00		3.00	15.00			0.45		20.25	
				1.00	10.00			1.20		12.00	
	60.00	75.00		2.00	15.00			0.45		13.50	
				1.00	15.00			1.20		18.00	
	75.00	90.00		2.00	15.00			0.45		13.50	
				1.00	15.00			1.20		18.00	
	RHS										
	75.00	90.00		2.00	15.00			0.45		13.50	BS Slab
				1.00	15.00			1.20		18.00	
	90.00	105.00		2.00	15.00			0.45		13.50	Open Drain
	105.00	120.00		2.00	15.00			0.45		13.50	
	120.00	135.00		2.00	15.00			0.45		13.50	
	135.00	150.00		2.00	15.00			0.45		13.50	
	150.00	157.80		1.00	7.80			0.45		3.51	
	1st Cross Road,Muniswamappa layout										
	RHS										
	0.00	15.00		3.00	15.00			0.40		18.00	BS Drain
	15.00	30.00		3.00	15.00			0.40		18.00	Open Drain
	30.00	45.00		3.00	15.00			0.40		18.00	
	45.00	60.00		2.00	15.00			0.40		12.00	
	60.00	70.00		2.00	10.00			0.40		8.00	
	1st A Cross Road,Muniswamappa Layout										
	LHS										
	0.00	2.00		3.00	2.00			0.40		2.40	Approach
	2.00	17.00		3.00	15.00			0.40		18.00	BS Drain

Consultant

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	17.00	32.00		3.00	15.00			0.40		18.00	Open Drain
	32.00	47.00		3.00	15.00			0.40		18.00	
	47.00	67.00		3.00	20.00			0.40		24.00	
	RHS										
	0.00	15.00		3.00	15.00			0.40		18.00	BS Drain
	15.00	30.00		3.00	15.00			0.40		18.00	
	30.00	45.00		1.00	15.00			0.40		6.00	
	45.00	67.00		2.00	22.00			0.40		17.60	
				1.00	22.00			1.20	26/12/17	26.40	
							Total Qty in Sqm			**1763.61**	

Measurements recorded on : 26/12/17

4	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1of PW, P&IWTD SR 2016-17)										
	2nd cross										
	From High Tension Wire Road										
	LHS										
	45	60		3	15.00			0.50		22.50	
	60	75		3	15.00			0.50		22.50	
	75	90		3	13.00			0.50		19.50	
	90	105		3	15.00			0.50		22.50	
	2nd Cross Road, Muniswamappa Layout										
	RHS										
	90	105		3	15.00			0.45		20.25	
	105	120		3	10.00			0.45		13.50	
	120	135		3	15.00			0.45		20.25	
	135	150		3	15.00			0.45		20.25	
							Total Qty in Cum			**161.25**	

Measurements recorded on : 23/12/17

7	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)	

Consultant

Assistant Engineer

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	culverts, kariyanna layout									
	C1-3rd - bottom		1.00	5.00			2.00	0.15	1.50	
	C2-1st c/s-bottom		1.00	4.30			2.00	0.15	1.29	
						Total Qty in Cum			2.79	
Measurements recorded on : 29/12/17										
15	:Providing and constructing granite /trap/basalt size stone masonry in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20cms hign, bond stones at two m apart in each course including cost of materials, labour, curing etc., complete as per specifications									
	culverts, kariyanna layout									
	C1-3rd C/S-side wall	1*2	2.00	5.00			0.60	0.40	2.40	
	C2- 1st c/s-side wall	1*2	2.00	4.30			0.60	0.40	2.06	
						Total Qty in Cum			4.46	
Measurements recorded on : 29/12/17										
16	Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work									
	culverts, kariyanna layout									
	C1-3rd C/S-side wall	1*2	2.00	5.00				0.40	4.00	
	C2- 1st c/s-side wall	1*2	2.00	4.30				0.40	3.44	
						Total Qty in Cum			7.44	
Measurements recorded on : 02/01/18										

Consultant

Assistant Engineer
AE(W)

Assistant Executive Engineer
Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
17	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work									
	culverts, kariyanna layout									
	C1-3rd C/S-side wall	1*2	2.00	5.00			0.60	0.10	**0.60**	
	C2- 1st c/s-side wall	1*2	2.00	4.30			0.60	0.10	**0.52**	
						Total Qty in Cum			**1.12**	
Measurements recorded on : 02/01/18										
21	Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)									
	culverts, kariyanna layout									
	C1-3rd C/S		8.00	1.80			0.6		8.64	
	C2- 1st c/s		7.00	1.80			0.6		7.56	
						Total Qty in Sqm			**16.20**	
Measurements recorded on :06/01/18										
22	KSRRB M300- Scarifying Existing Granular Surface to a Depth of 50mm by Manual Means. KSRRB M300-52.1. Scarifying the existing granular road surface to a depth of 50mm and disposal of scarified material and complete as per specifications. MORTH Specification No. 305.4.3 (P.No.148, I.No.19.58 of PW,P&IWTD S.R 2016-17)									
	Cross Road 1 in 2nd Cross									
	0.00	15.00		1.00	15.00	3.70	4.10	3.90	58.50	
	15.00	31.00		1.00	16.00	4.10	4.10	4.10	65.60	
	Cross Road 2 in 2nd Cross									
	0.00	15.00		1.00	15.00	4.70	4.70	4.70	70.50	

Consultant

Assistant Engineer
06/01/18

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	15.00	30.00		1.00	15.00	4.70	4.70	4.70		70.50	
	30.00	36.00		1.00	6.00	4.70	3.70	4.20		25.20	
	2nd Cross Road, Muniswamappa Layout										
	0.00	15.00		1.00	15.00	6.20	5.80	6.00		90.00	
	15.00	30.00		1.00	15.00	5.80	5.50	5.65		84.75	
	30.00	45.00		1.00	15.00	5.50	5.30	5.40		81.00	
	45.00	60.00		1.00	15.00	5.30	5.40	5.35		80.25	
	60.00	75.00		1.00	15.00	5.40	5.00	5.20		78.00	
	75.00	90.00		1.00	15.00	5.00	5.20	5.10		76.50	
	90.00	105.00		1.00	15.00	5.20	5.10	5.15		77.25	
	105.00	120.00		1.00	15.00	5.10	5.30	5.20		78.00	
	120.00	135.00		1.00	15.00	5.30	5.70	5.50		82.50	
	135.00	150.00		1.00	15.00	5.70	5.60	5.65		84.75	
	150.00	157.80		1.00	7.80	5.60	5.90	5.75		44.85	
	1st Cross Road,Muniswamappa layout										
	0.00	15.00		1.00	15.00	5.30	5.80	5.55		83.25	
	15.00	30.00		1.00	15.00	5.80	5.90	5.85		87.75	
	30.00	45.00		1.00	15.00	5.90	5.90	5.90		88.50	
	45.00	60.00		1.00	15.00	5.90	5.70	5.80		87.00	
	60.00	70.00		1.00	10.00	5.70	5.80	5.75		57.50	
	1st A Cross Road,Muniswamappa Layout										
	0.00	2.00		1.00	2.00	6.30	6.50	6.40		12.80	Approach
	2.00	17.00		1.00	15.00	6.20	5.90	6.05		90.75	
	17.00	32.00		1.00	15.00	5.90	5.80	5.85		87.75	
	32.00	47.00		1.00	15.00	5.80	5.70	5.75		86.25	
	47.00	67.00		1.00	20.00	5.70	6.56	6.13		122.60	
							Total Qty in Sqm			**1952.30**	

Measurements recorded on : 06/01/18

Consultant

Assistant Engineer

06/1/18

Assistant Executive Engineer

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
23	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)										
	2nd cross										
	From High Tension Wire Road										
	0.00	15.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	15.00	30.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	30.00	45.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	45.00	60.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	60.00	75.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	75.00	90.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	90.00	105.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	105.00	120.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	120.00	135.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	135.00	150.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	150.00	156.20		1.00	6.20	1.20	1.30	1.25	0.25	1.94	
	156.20	171.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	cross road 1
	171.20	186.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	186.20	200.20		1.00	14.00	1.20	1.30	1.25	0.25	4.38	cross road 2
	200.20	215.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	215.20	230.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	230.20	245.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	245.20	260.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	260.20	275.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	275.20	290.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	290.20	305.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	305.20	320.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	320.20	335.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	335.20	350.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	350.20	365.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	365.20	380.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	380.20	395.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	395.20	413.20		1.00	18.00	1.20	1.30	1.25	0.25	5.63	

Consultant

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Division
Bruhat Bangalore Mahanagara Pali
Bangalore - 560 092

Name Of work : - Improvements to Roads and drains at Amruthanagara, Verma Layout, Bhuvaneshwari Nagara and Surrounding Areas in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	413.20	415.20		1.00	2.00	1.20	1.30	1.25	0.25	0.63	Approach
							Total Qty in Cum			129.75	
Measurements recorded on 16 /01/18											
24	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-										
	2nd cross										
	From High Tension Wire Road										
	0.00	15.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	15.00	30.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	30.00	45.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	45.00	60.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	60.00	75.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	75.00	90.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	90.00	105.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	105.00	120.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	120.00	135.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	135.00	150.00		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	150.00	156.20		1.00	6.20	1.20	1.30	1.25	0.25	1.94	
	156.20	171.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	cross road 1
	171.20	186.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	186.20	200.20		1.00	14.00	1.20	1.30	1.25	0.25	4.38	cross road 2
	200.20	215.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	215.20	230.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	230.20	245.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	245.20	260.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	260.20	275.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	275.20	290.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	290.20	305.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	305.20	320.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	320.20	335.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	
	335.20	350.20		1.00	15.00	1.20	1.30	1.25	0.25	4.69	

Consultant

Assistant Engineer

AE(W2)

Assistant Executive Engineer

Kodigehalli Sub Division

Bruhat Bangalore Mahanagara Palike

Bangalore - 560 092